National Institute of Environmental Health Sciences

Nature appropriation and associations with population health in Canada's largest cities

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Abstract:

Earth is a finite system with a limited supply of resources. As the human population grows, so does the appropriation of Earth's natural capital, thereby exacerbating environmental concerns such as biodiversity loss, increased pollution, deforestation and global warming. Such concerns will negatively impact human health although it is widely believed that improving socio-economic circumstances will help to ameliorate environmental impacts and improve health outcomes. However, this belief does not explicitly acknowledge the fact that improvements in socio-economic position are reliant on increased inputs from nature. Gains in population health, particularly through economic means, are disconnected from the appropriation of nature to create wealth so that health gains become unsustainable. The current study investigated the sustainability of human population health in Canada with regard to resource consumption or "ecological footprints" (i.e., the resources required to sustain a given population). Ecological footprints of the 20 largest Canadian cities, along with several important determinants of health such as income and education, were statistically compared with corresponding indicators of human population health outcomes. A significant positive relationship was found between ecological footprints and life expectancy, as well as a significant negative relationship between ecological footprints and the prevalence of high blood pressure. Results suggest that increased appropriation of nature is linked to improved health outcomes. To prevent environmental degradation from excessive appropriation of natural resources will require the development of health promotion strategies that are de-coupled from ever-increasing and unsustainable resource use. Efforts to promote population health should focus on health benefits achieved from a lifestyle based on significantly reduced consumption of natural resources.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3709316

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes

Geographic Feature:

resource focuses on specific type of geography

Urban

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Non-U.S. North America

Health Impact: ☑

specification of health effect or disease related to climate change exposure

General Health Impact

Resource Type: ☑

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified